



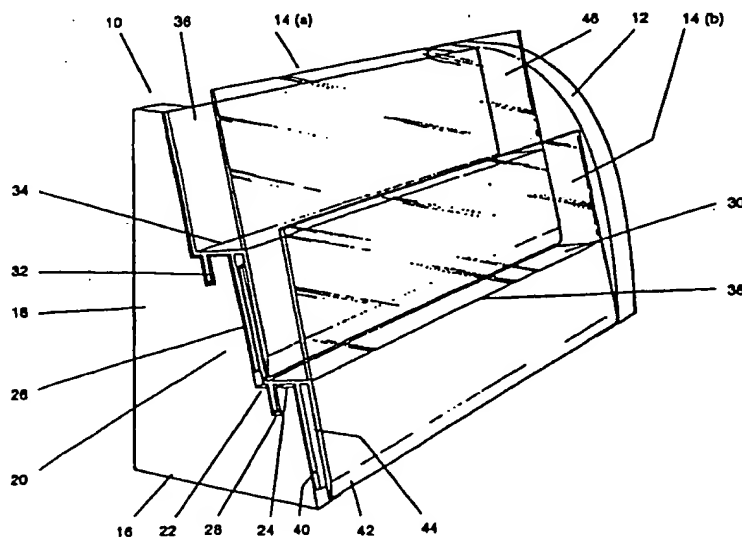
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(54) Title: APPARATUS FOR DISPLAYING ARTICLES



(57) Abstract

A display system for cards (as defined) including a pair of spaced apart ends (10, 12), the two ends (10, 12) being generally identical and being generally triangular in shape; each end (10, 12) having a front face (20) with a plurality of steps (22) therein. Display modules (14) extend between the ends (10, 12) and rest on the steps (22). Each display module has a generally flat base (30) with the base having forward face (38) and a rear face (34). One of the forward face (38) and rear face (34) has a first engaging means (36) extending outward therefrom, and the other of the forward and rear faces (38, 34) has extending outwardly therefrom a second engaging means (40) such that the first engaging means (36) of one display module (14a) can locate with and engage the second engaging means of an adjacent display module (14b).

APPARATUS FOR DISPLAYING ARTICLES

Description of the Invention

This invention relates to apparatus for displaying articles and refers particularly, though not exclusively, to apparatus for displaying articles in a manner such that
5 at least a part of the front face of the article can be viewed.

Throughout this specification the reference to a "card" or derivative expressions is to be taken as including a reference to any article having a generally planar face such as, for example, a card, compact disc case, pre-recorded cassette case, packaged hosiery, books, magazines, video cassettes, computer games,
10 computer discs, and other articles having printed matter on the front thereof wherein it is decided to have such articles displayed where at least part of the printed matter can be viewed.

Background of the Invention

When displaying cards (as defined above) including greeting cards, it is usual to
15 have these arranged in racks adjacent the wall of the store in which they are being displayed. These racks are tiered from the base to the top such that in each tier a number of similar cards can be placed side-by-side; and in the next tier, again, a row of similar cards side-by-side. By having the tiered relationship, the upper portion of the front face of the card in the upper row can be viewed despite the
20 card in the lower row. This has been found to greatly assist the marketing of cards. Similar comments apply in relation to the marketing of magazines, newspapers, books, compact discs, pre-recorded cassettes, computer discs of computer games, video cassettes, hosiery in packets with information relating to the contents printed at the front of the packet, and so forth.

25 Such display cases are normally built to order. This has resulted in the display cases being relatively expensive. Although there have been some attempts at modularising the nature of the constructions, this has not significantly reduced

costs.

It is therefore the principle object of the present invention to provide a display system for cards (as herein defined) where modular construction can be used.

Brief description of the Invention

- 5 With the above and other objects in mind, the present invention provides a display system for cards (as herein defined) including a pair of spaced-apart ends, the two ends being generally identical and being generally triangular in shape; each end having a front face with a plurality of steps therein; and a plurality of display modules each adapted to rest upon one of the steps on each of the ends and to
- 10 extend between the ends; each display module having a base to rest upon the step, the base having a forward face and a rear face, one of the forward face and the rear face having a first engaging means extending outwardly therefrom, and the other of the forward and rear faces having extending outwardly therefrom a second engaging means such that the first engaging means of one display module
- 15 can locate with and engage the second engaging means of an adjacent display module.

Preferably, the first engaging means includes two parallel and slightly spaced apart panels, and the second engaging means includes a single panel.

- Preferably, each step has a groove therein extending in the general direction of
- 20 the longitudinal axis of the display module, the base of each display module having depending therefrom a rib adapted to locate in the groove.

- Advantageously, the two spaced-apart panels are at a side of the base opposite to that from which the single panel extends. Preferably, the two spaced-apart panels are at the rear of the base and extend upwardly therefrom, with the single panel
- 25 being at the front of the base and extending downwardly therefrom. Furthermore, the rib may depend from the base at the middle of the base, or at the rear of the base.

Most advantageously, the base has a front panel extending upwardly therefrom so as to retain there behind at least one card (as defined herein). Preferably, the front panel is of a clear material. More preferably, the front panel is of either small height, or sufficient height to fully retain therebehind the card.

- 5 Advantageously, the first engaging means has a longitudinally extending groove, the second engaging means being a tongue shaped and sized to fit in the groove.

The front panel may be retained in relation to the base in the manner of a sliding fit; or may be integral with or affixed to the base.

- 10 Preferably, the display module is made as an extrusion of a suitable material such as a plastics material.

Brief description of the drawings

- 15 In order that the invention may be fully understood there shall now be described by way of non-limitative example only preferred embodiments of the present invention, the description being with reference to the accompanying illustrated drawings in which:

Figure 1 is a front perspective view of a display panel in accordance with the present invention;

Figure 2 is a side view from the left end of Figure 1;

- 20 Figure 3 is an end view of a first form of display module for use with the embodiment of Figures 1 and 2;

Figure 4 is a view corresponding to Figure 3 of an alternative embodiment of a display module;

Figure 5 is a view corresponding to that of Figures 3 and 4 of a third embodiment of display module according to the present invention;

Figure 6 is a further embodiment of the display module, the view being similar to that of Figures 3 to 5;

Figure 7 is an end view of a second embodiment of display panel in accordance with the present invention;

- 5 Figure 8 is an end view of the embodiment of Figure 7, without the display modules fitted;

Figure 9 is an end view on an enlarged scale of a portion of the display panel of Figure 7;

- 10 Figure 10 is an end view of an embodiment of display module for the embodiments of Figures 7 to 9;

Figure 11 is an end view of an alternative form of display module for use with the embodiments of Figures 7 to 9;

Figure 12 is an end view of an alternative form of display module;

- 15 Figure 13 is a partial perspective view of an alternative form of display panel according to the present invention;

Figure 14 is an end view of a final form of a display module according to the present invention; and

Figure 15 is an enlarged end view of the engagement means of Figure 14.

Description of preferred embodiments

- 20 To refer to Figures 1, 2 and 3, there is shown a display panel which has a first end 10 and a second end 12. Extending between first end 10 and second end 12 are plurality of display modules each generally designated as 14. As two such modules are illustrated, these have been designated 14(a) and 14(b).

End 12 is shown as being generally curved but it may be straight, if required. This is so that the end 12 will provide an end fitting rather than being against a wall or the like. However, a fitting such as end 10 must still be used with end 12 to enable the panel to be able to be assembled.

- 5 End 10 is generally triangular. It has a flat base 16 adapted to rest upon a suitable surface, such as a floor. Again, a flat rear surface 18 can be placed against a wall or the like (not shown). Its front face - generally designated as 20 - has a plurality of steps 22 therein. This provides a flat step surface 24 and a generally upwardly extending surface 26. In the flat step surface 24, there is a transverse groove 28,
10 the purpose of which will be described hereunder.

Associated with each step is a display module 14. The display modules 14 extend from first end 10 to second end 12 - the two ends 10, 12 serving the support the display modules 14. In this way the display panel can be created.

- Each display module 14 has a generally flat base 30 sized and shaped to fit on
15 the flat surface 24. Extending downwardly from adjacent the rear of base 30 is a lug or rib 32 which may extend the full length of the display module 14, or may be only at an end thereof. By having lug 32 locate in groove 28, the module 14 is located in relation to and restrained against unwanted movement relative to the ends 10, 12.

- 20 Extending upwardly from rear edge 34 of display module 14 is a rear panel 36. Rear panel 36 is slightly less than the height of upward edge 26 of front face 20 of end 10. Panel 36 extends from end 10 to end 12. From front edge 38 of base 30 there are two downwardly extending and slightly spaced-apart panels 40, 42 which have a gap 44 there between. Again, panels 40, 42 extend between end 10 and
25 end 12. Panel 42 is again slightly less than the height of edge 26 of front face 20. Panel 40 is of slightly shorter height than panel 42. The gap 44 is of a width slightly greater than the thickness of panel 36. In this way, the panel 36 of display module 14(b) can locate in gap 44 of display module 14(a). This restrains display module 14(b) and display module 14(a) from relative movement and from
30 movement away from the panel itself.

Each display module 14 also has a front panel 46 which extends generally upwardly for approximately the height of edge 26 of front face 20. Front panel 46 extends upwardly from front edge 38 of base 30, and also extends for the full length of base 30 between ends 10 and 12.

- 5 It is preferable that each display module 14 is made as an extrusion of a suitable material such as, for example, a plastics material. The material may be a clear plastics if desired. Alternatively, the base 34, lug 32, panels 40, 42 and 36 may be made of a solid and non-transparent plastics material with front panel 46 being separately made of a clear material and being attached to the remainder of the
10 module 14 by any suitable means such as gluing, welding, sonic welding, or the like.

- By having the display modules 14 as an extrusion of a plastics material, they may be made in any desired length. Ends 12 may be placed at each end with ends 10 being placed intermediate ends 12 to provide support, with the number of
15 supports being determined by the weight of the material to be placed for display.

Therefore, display panels can be created in a modular way with display modules 14 being extruded in long lengths, and cut to length. The number of modules 14 can be varied according to the height of the ends 10,12. The products for display would be located in the gap 48 between front panel 46 and rear panel 36.

- 20 Naturally, there may be two rear panels 36 with a gap between them, and only a single lower front panel, with the only requirement being that either of the rear upwardly extending panel or the front downwardly extending panel must be two spaced-apart panels, and the other must be one to fit there between.

- This is somewhat illustrated in Figure 4, where there are two spaced-apart rear
25 panels 136 and 137 with a gap 139 there between. There is a double front panel 142 of reduced height. The rear panels 136, 137 are of greater height. Furthermore the front panel 146 is of considerably reduced height. The base 130 has a plurality of spaced-apart, vertically extending ribs 131 thereon so that the cards (as herein defined) to be displayed may be individually located within the

gaps 133 between projections 131.

A variation of the embodiment of Figure 4 is shown in Figure 5 where the only difference is that the projections 231 are in the form of small ribs. Furthermore there may be a larger number of them, with the gaps 233 there between being of lesser extent. The embodiment of Figure 4 would be suitable for thicker items such as, for example, compact discs, magazines, books or the like; whereas that of Figure 5 would be suitable for thinner articles being removed quickly such as packaged hosiery, greeting cards, or the like.

Yet another variation is shown in Figure 6 where the lug 332, spaced-apart panels 340 and 342, together with gap 341 and rear panel 336 are the same as in previous embodiments. The main difference here is that front panel 346 is a separate entity and has a lower surface 347 from which depends on I-shaped lug 349. Base 330 has an elongate slot 351 therein through which the web of shaped projection 349 passes. A secondary base 353 is provided beneath base 330. In this way the front panel 346 is slideably located relative to the remainder of the display module 314 by sliding shaped projection 349 along slot 351. The distance between the base 330 and secondary base 353 is slightly greater than the thickness of head 355 of shaped projection 349 so that head 355 restrains the front panel 346 against unwanted movement other than the sliding movement relative to the remainder of the display module 314.

In Figures 7 to 10 there is shown a second embodiment of a display panel. Here there is an end 410 which again is generally triangular and has a rear surface 418, a base 416 and a front surface generally indicated as 420. Again the front surface 420 as a plurality of steps 422, although in this instance the slot 428 is at the rear of step 422. Furthermore, the step surface 424 has a front groove 425, the purpose of which will be understood from the following description.

The nature of the display module 414 to be used with this particular embodiment is more easily discernible from Figures 9 and 10. Each display module 414 has a rear panel 436 which is approximately the same height as the combination of rear panel 36 and front panel 46 of the embodiment of Figure 1. Extending rearwardly

and then downwardly from panel 436 is an L-shaped lug 435 and, between lug 435 and the top 437 of panel 436, there are three generally spaced-apart and parallel, rearwardly extending ribs 439.

Base 430 has depending from its rear edge 434 a lug 432 to engage in slot 428,
5 as in the earlier embodiments. Step 422 locates in gap 439 between lug 432 and lower front panel 440. The front panel 440 at its lower edge 441 has an outwardly and then upwardly extending L-shaped lug 443. Lug 443 terminates before base 430 to provide a gap 445 there between.

As can be seen from Figure 9, two such modules 414 can "hook" together by
10 engaging lug 435 over lug 443 through gap 445 to thus hold the two panels 414 together. The purpose of ribs 439 is to enable any product located in gap 448 to be not caught on the rear surface 447 of panel 436. Near the top of end 410, surface 426 is provided with a groove 411 in which the uppermost lug 435 may be located. Ribs 439 also serve to keep panel 436 lightly spaced from surface 420 at
15 the top of 410.

Figure 11 shows a variation of this embodiment with the only difference being that front wall 540 terminates in the L-shaped lug 543 with there being a gap 545
between lug 543 and base 530. Extending downwardly from the lower portion of L-shaped lug 543 is a further retaining lug 549 to assist in the correct location and
20 stabilisation of display module 514. In all other respects the operation and features of this particular form are the same as the form of Figure 10.

A further variation is shown in Figure 12 where there is a rear panel 636 which has only two ribs 639 at its upper end 637. The lug 632 extends downwardly from the rear edge 634 of base 630, as in the past. The front panel 640 extends
25 downwardly more in the manner of one of the front panels of Figure 1. The L-shaped lug of embodiment of Figure 10 is replaced by major panel 635 extending outwardly then upwardly relative to panel 636, creating a gap 645 there between. In this way, the front panel 640 of one module 614 can be located in the gap 645 of a lower module 614 to thus restrain the two modules from unwanted relative
30 movement, other than a sliding movement.

In Figure 13 is showed a variation of all earlier embodiments where they are able to be attached to a vertical wall. In this particular form, base 730 has with a front wall 746 extending upwardly therefrom. Rear wall 736 extends upwardly from the rear of base 730. Two lower walls 740, 742 are at the rear of base 730. In this way, if a lower module 714(a) is secured to the wall 800, the subsequent modules 714(b) and 714(c) can be placed such that the gap 744 receives the panel 736 from the adjacent module 714. If, for example, the panel 736 was secured to wall 800, and the panels 740, 742 were of slightly lesser length, they could slot between the panel 736 and the wall and be held in relation thereto. In this way, the display panel can be created on wall 800. Naturally, variations as per the earlier embodiments may be able to be applied.

Figures 14 and 15 show a final embodiment where base 930 has a front engaging means 942 extending downwardly from the front thereof, and a front wall 946 extending upwardly from the front thereof. Front wall 946 has forwardly projecting ribs 939, thereby creating corresponding grooves 950.

Rear wall 936 extends upwardly from the rear of base 930 and is generally planar. At its upper end 937 it has a longitudinally extending groove 955 formed by a segment 951 of a cylinder, with there being an opening 952. Lower rib or lug 932 is as for earlier embodiments.

The front engaging means 942 is in the form of a tongue, having a web 953, and a bulbous or cylindrical head 954 shaped and sized to fit in groove 955 in the manner of or sliding fit. Therefore, head 954 can be located in groove 955 in the manner of a sliding fit, and retained therein so as to retain one module in relation to another, but allowing for limited relative angular movement with the limits of movement being defined by the size of opening 952 due to web 953 being located therein, and engagement of segment 951 under base 930.

Whilst there has been described in the foregoing description preferred embodiments of a displayed panel, incorporating the principal features of the present invention, it will be understood by those schooled in a technology concern that many variations or modifications in details of design and construction may be

made without departing from the essential features of the invention.

It will be understood that the invention disclosed and defined herein extends to all alternative combinations of two or more of the individual features mentioned or evident from the text or drawings. All of these different combinations constitute
5 various alternative aspects of the invention.

It will also be understood that where the term "comprises" or its grammatical variants, is employed herein, it is equivalent to the term "includes" and is not to be taken as excluding the presence of other elements or features.

CLAIMS

- 1 A display system for cards (as herein defined) including a pair of spaced-apart ends, the two ends being generally identical and being generally triangular in shape; each end having a front face with a plurality of steps
5 therein; and a plurality of display modules each adapted to rest upon one of the steps on each of the ends and to extend between the ends; each display module having a base to rest upon the step, the base having a forward face and a rear face, one of the forward face and the rear face having a first engaging means extending outwardly therefrom, and the other
10 of the forward and rear faces having extending outwardly therefrom a second engagement means such that the first engaging means of one display module can locate with and engage second engaging means of an adjacent display module.
- 2 A display system as claimed in claim 1 wherein the first engaging means
15 includes two parallel and slightly spaced apart panels, the second engaging means including a single panel.
- 3 A display system as claimed in claim 1 or claim 2, wherein each step has a groove therein extending in the general direction of the longitudinal axis of the display module, the base of each display module have depending
20 therefrom a rib adapted to locate in the groove.
- 4 A display system as claimed in claim 2, wherein the two spaced-apart panels are at a side of the base opposite to that from which the single panel extends.
- 5 A display system as claimed in claim 2 or claim 4, wherein the two spaced
25 panels are at the rear of the base and extend upwardly therefrom, with the single panel being at the front of the base and extending downwardly therefrom.
- 6 A display system as claimed in claim 3, wherein the rib depends from the

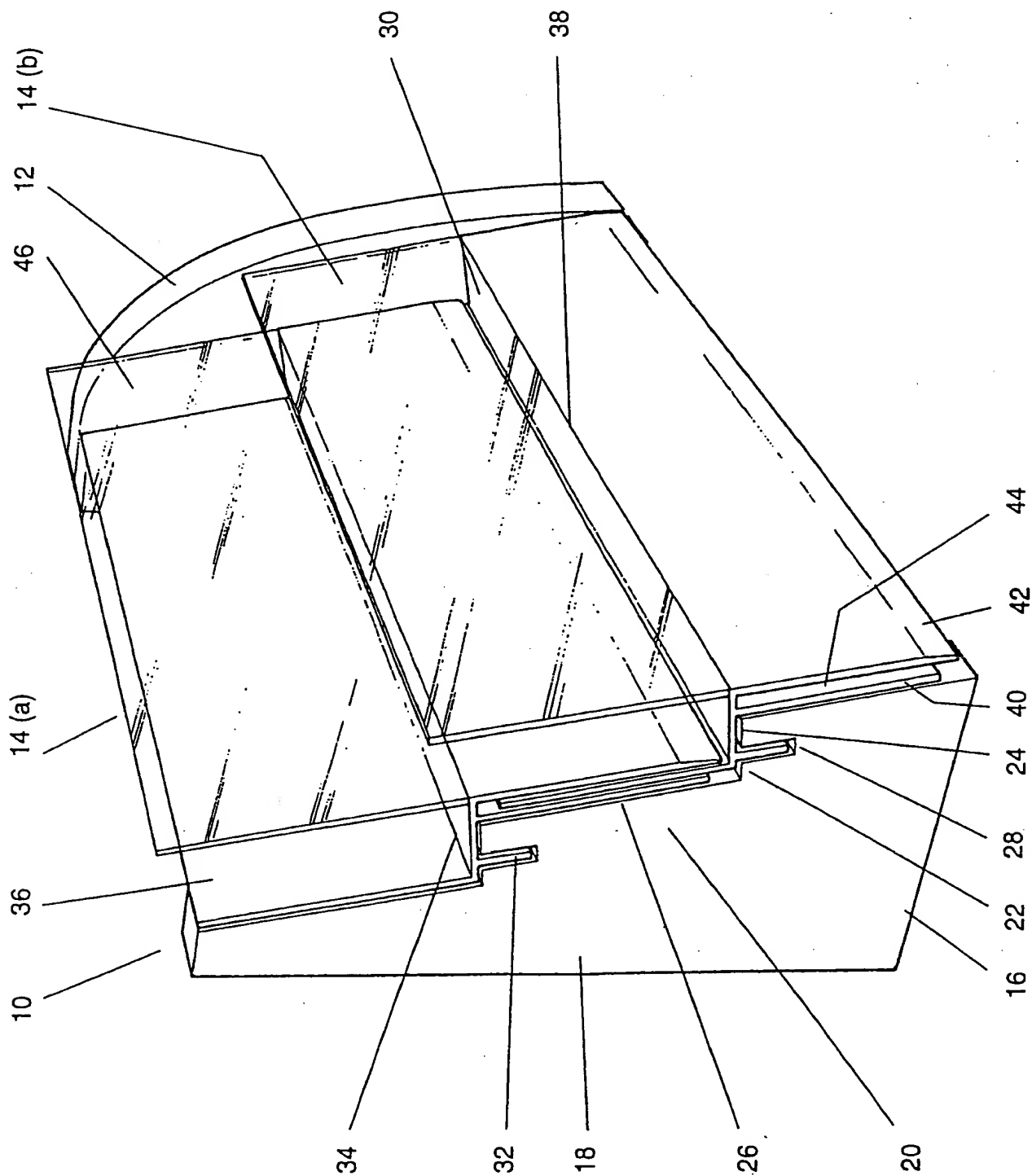
base at the middle of the base.

- 7 A display system as claimed in claim 3, wherein the rib depends from the rear of the base.
- 8 A display system as claimed in any one of claims 1 to 8, wherein the base
5 has a front panel extending upwardly therefrom so as to retain there behind at least one card (as defined herein).
- 9 A display system as claimed in claim 8, wherein the front panel is of a clear material.
- 10 A display system as claimed in claim 8 or claim 9, wherein the front panel is
10 of sufficient height to fully retain therebehind the card.
- 11 A display system as claimed in any one of claims 8 to 10, wherein the front panel is retained in relation to the base in the manner of a sliding fit.
- 12 A display system as claimed in claim 1, wherein the first engaging means
15 has a longitudinally extending groove, the second engaging means having a tongue shaped and sized to fit in the groove.
- 13 A module for a display system, the module including a base, the base
20 having a forward face and a rear face, one of the forward face and the rear face having a first engaging means extending outwardly therefrom, and the other of the forward and rear faces having a second engagement means extending outwardly therefrom such that the first engaging means of one module can locate with and engage the second engaging means of an adjacent module.
- 14 A module as claimed in claim 13, wherein the first engaging means
25 includes two parallel and slightly spaced apart panels, the second engaging means including a single panel.

- 15 A module as claimed in claim 13 or claim 14, wherein the first engaging means extends vertically downwardly from the front face of the base, and the second engaging means extends vertically upwardly from the rear of the face.
- 5 16 A module as claimed in claim 13 or claim 14, wherein the first engaging means extends vertically upwardly from the rear face of the base, and the second engagement means extends vertically downwardly from the front face of the base.
- 10 17 A module as claimed in any one of claims 13 to 16, wherein a rib extends vertically downwardly from the base.
- 18 A module as claimed in claim 17, wherein the rib is located at the rear of the base.
- 15 19 A module as claimed in any one of claims 13 to 18, wherein there is included a front panel extending vertically upwardly from the front of the base so as to retain therebehind at least one card (as hereinbefore defined).
- 20 20 A module as claimed in claim 13, wherein the first engaging means has a longitudinally extending groove, the second engaging means having a tongue shaped and sized to fit in the groove.
- 20 21 A module as claimed in claim 13, wherein the groove is formed by a segment of a cylinder, there being a longitudinally extending opening therein.
- 25 22 A module as claimed in claim 21, wherein the tongue has a web and a bulbous head, the tongue of one module engaging in the segment of the cylinder of an adjacent module in the manner of a sliding fit, the web locating in the opening.

- 23 A module as claimed in any one of claims 13, 20, 21 or 23, wherein the groove is at an end of a rear wall, the rear wall extending vertically upwardly from the rear of the base, the end being remote from the base.
- 24 A module as claimed in claim 23, wherein the second engaging means
5 extends vertically downwardly from the front of the base.
- 25 A module as claimed in claim 22, wherein the bulbous head can rotate in the groove to enable the module to rotate relative to the adjacent module, the size of the opening, and the web located in it, defining the limits of rotation.

Figure 1



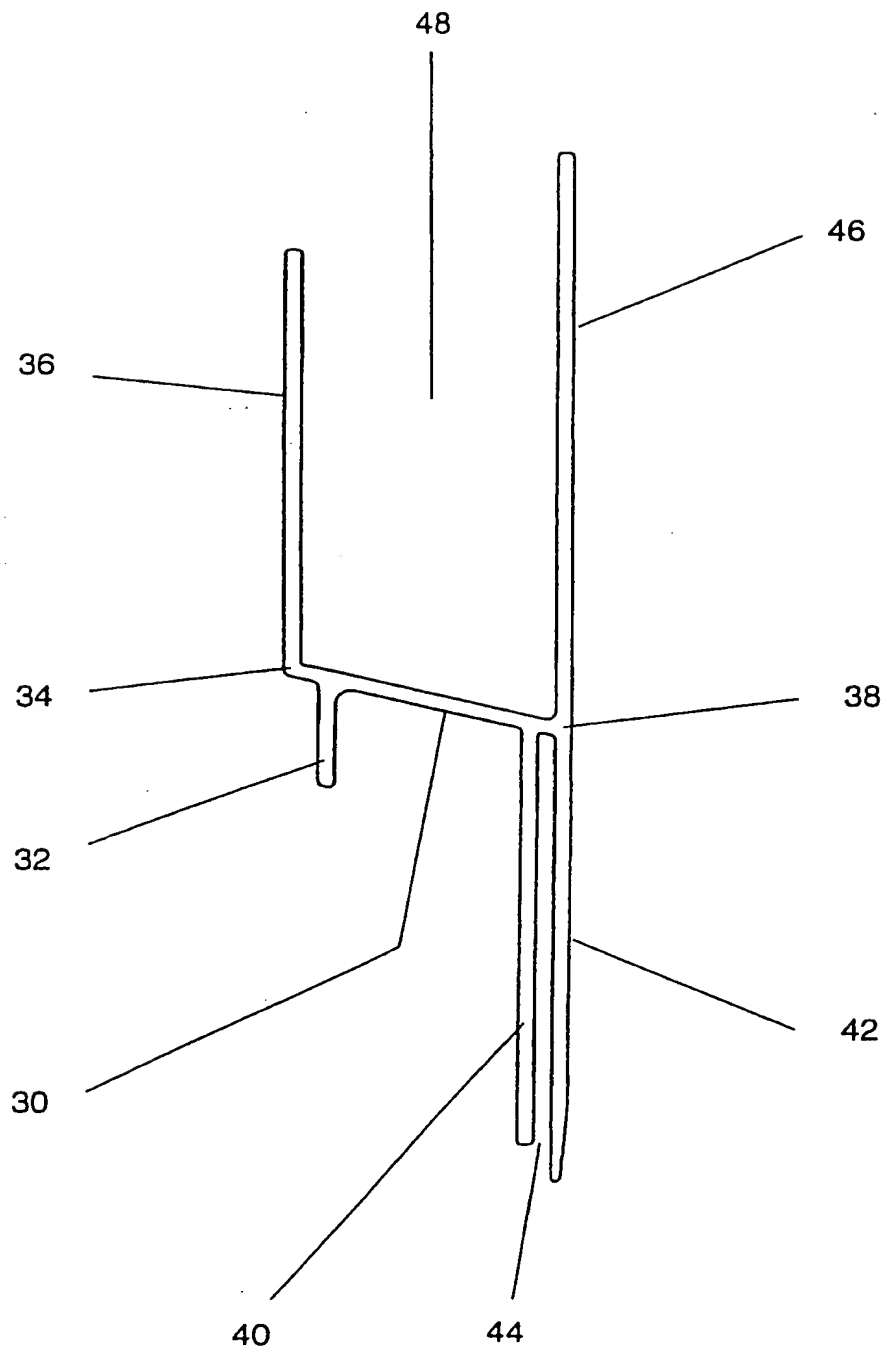
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Figure 2



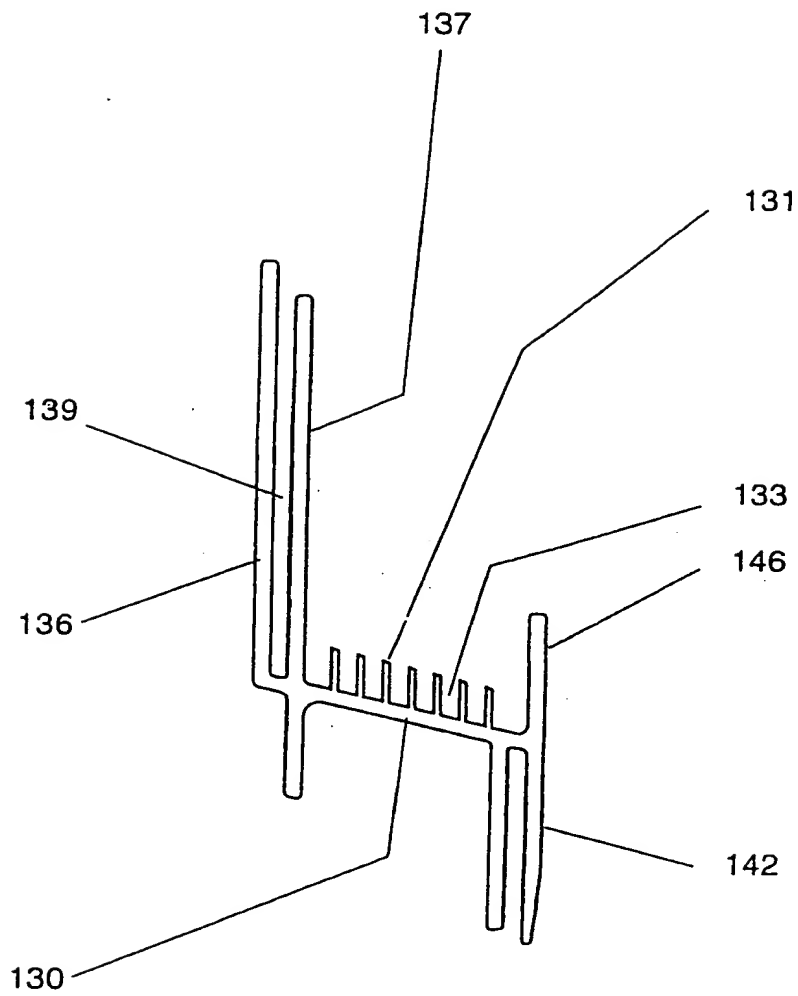
3/15

Figure 3



4/15

Figure 4



5/15

Figure 5

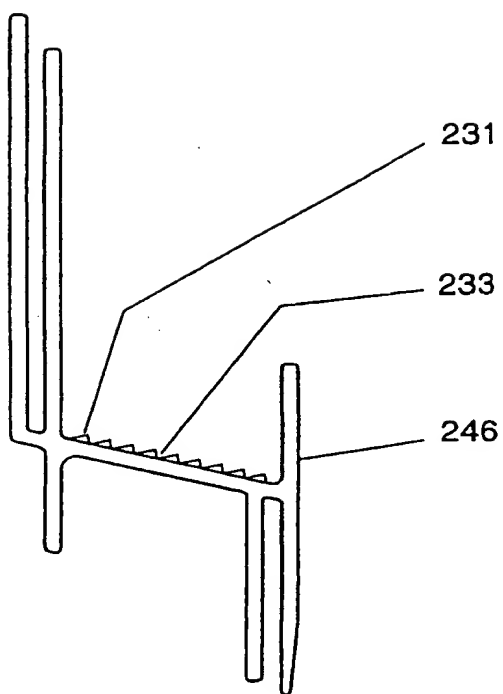
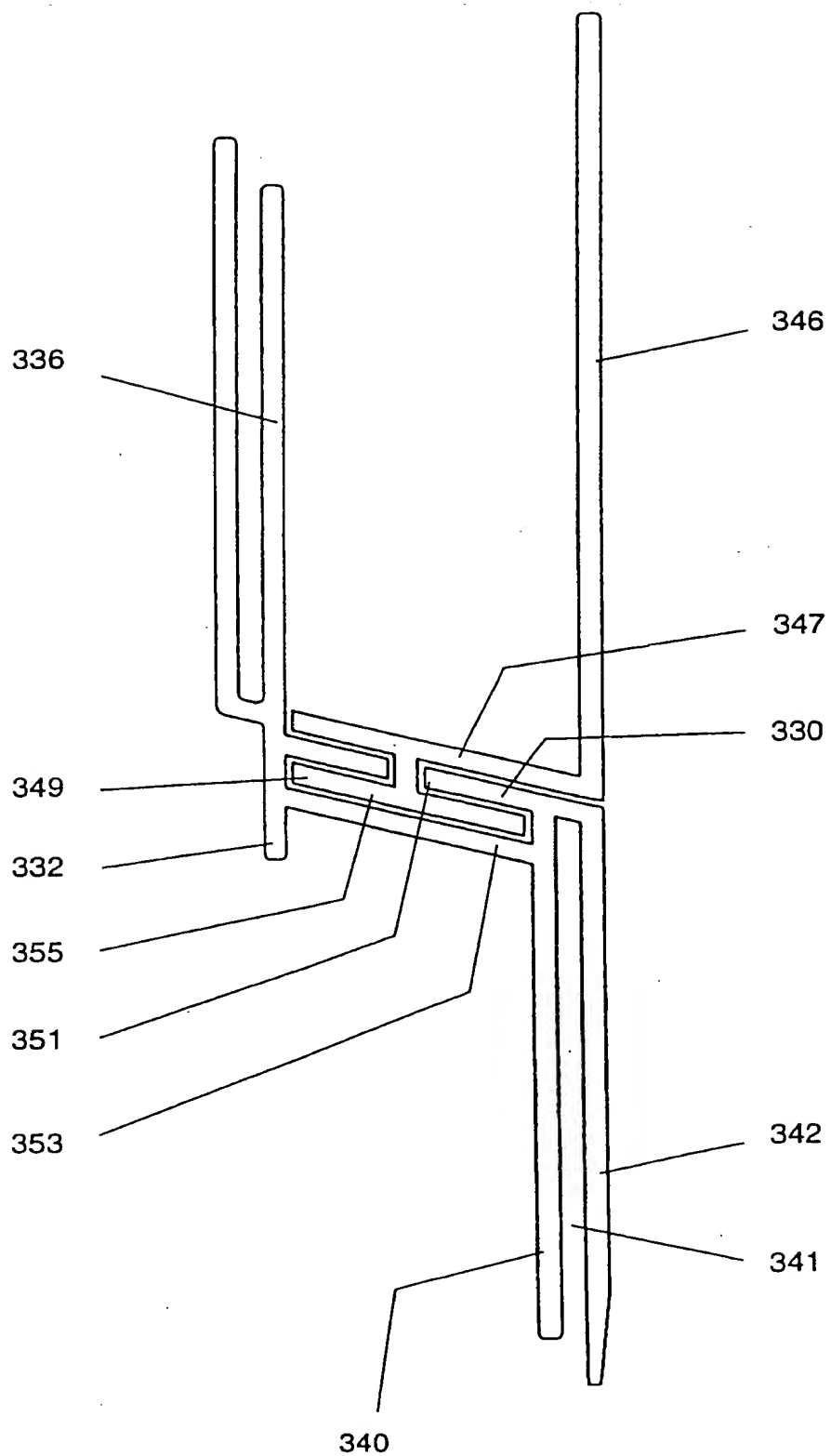
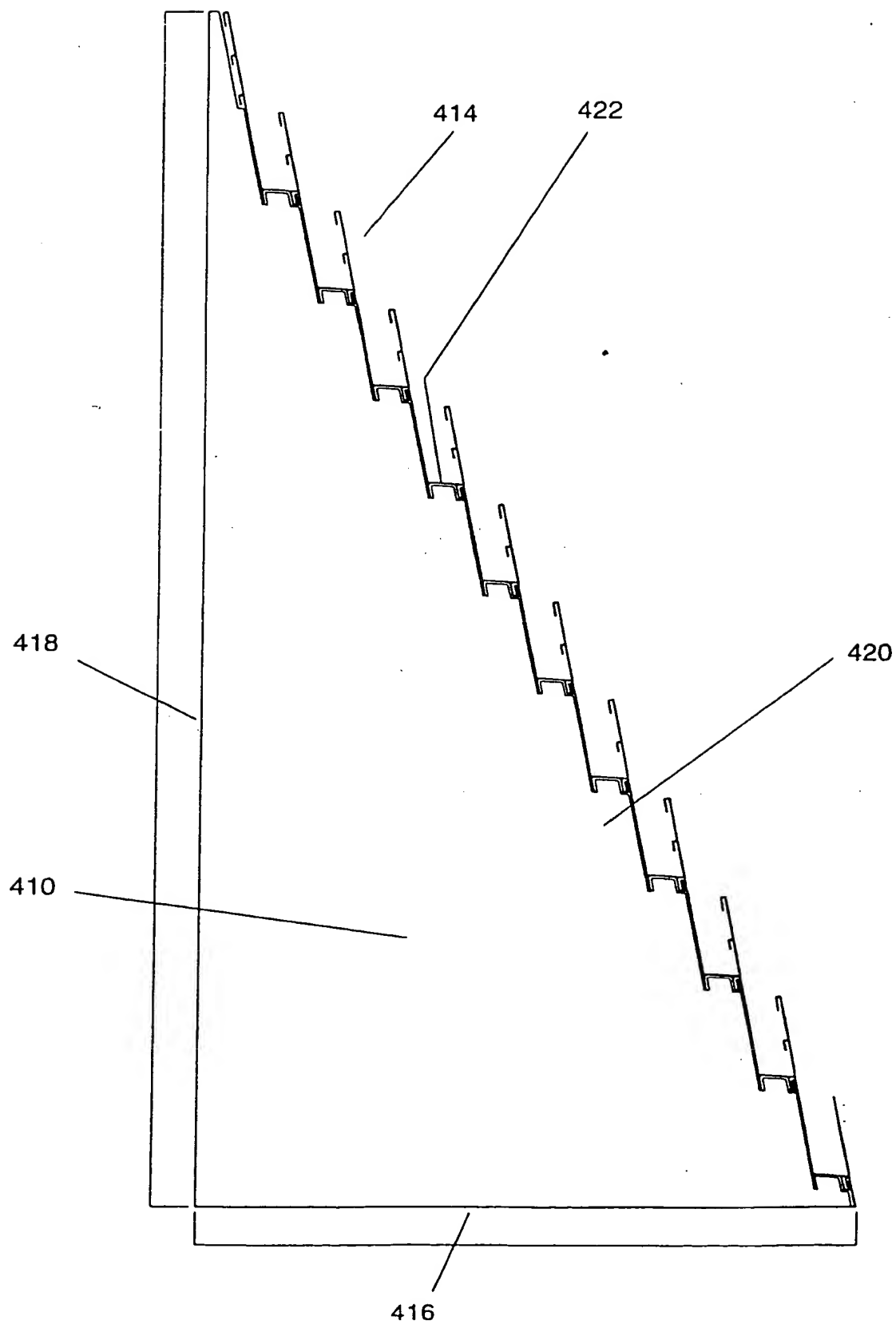


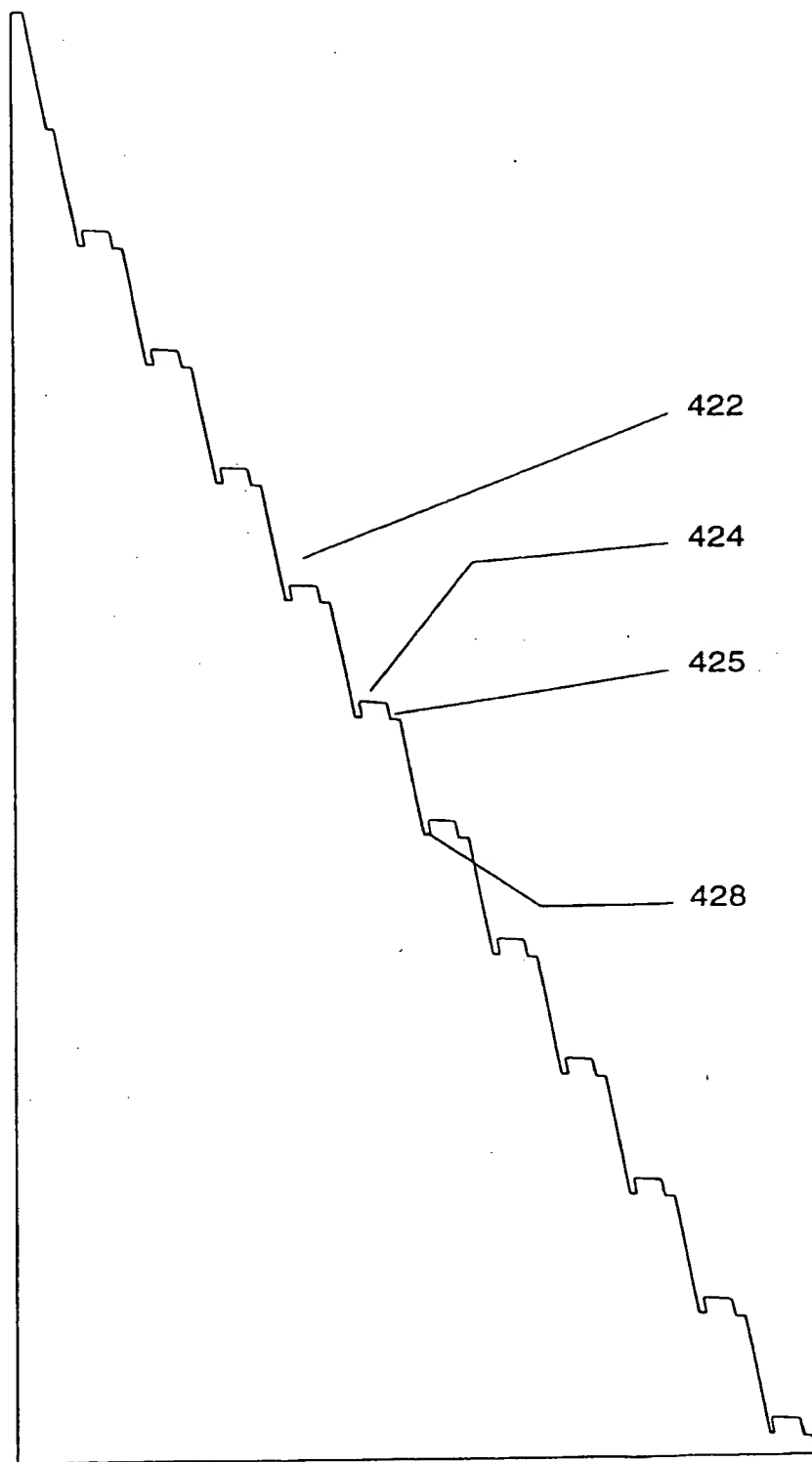
Figure 6



7/15
Figure 7

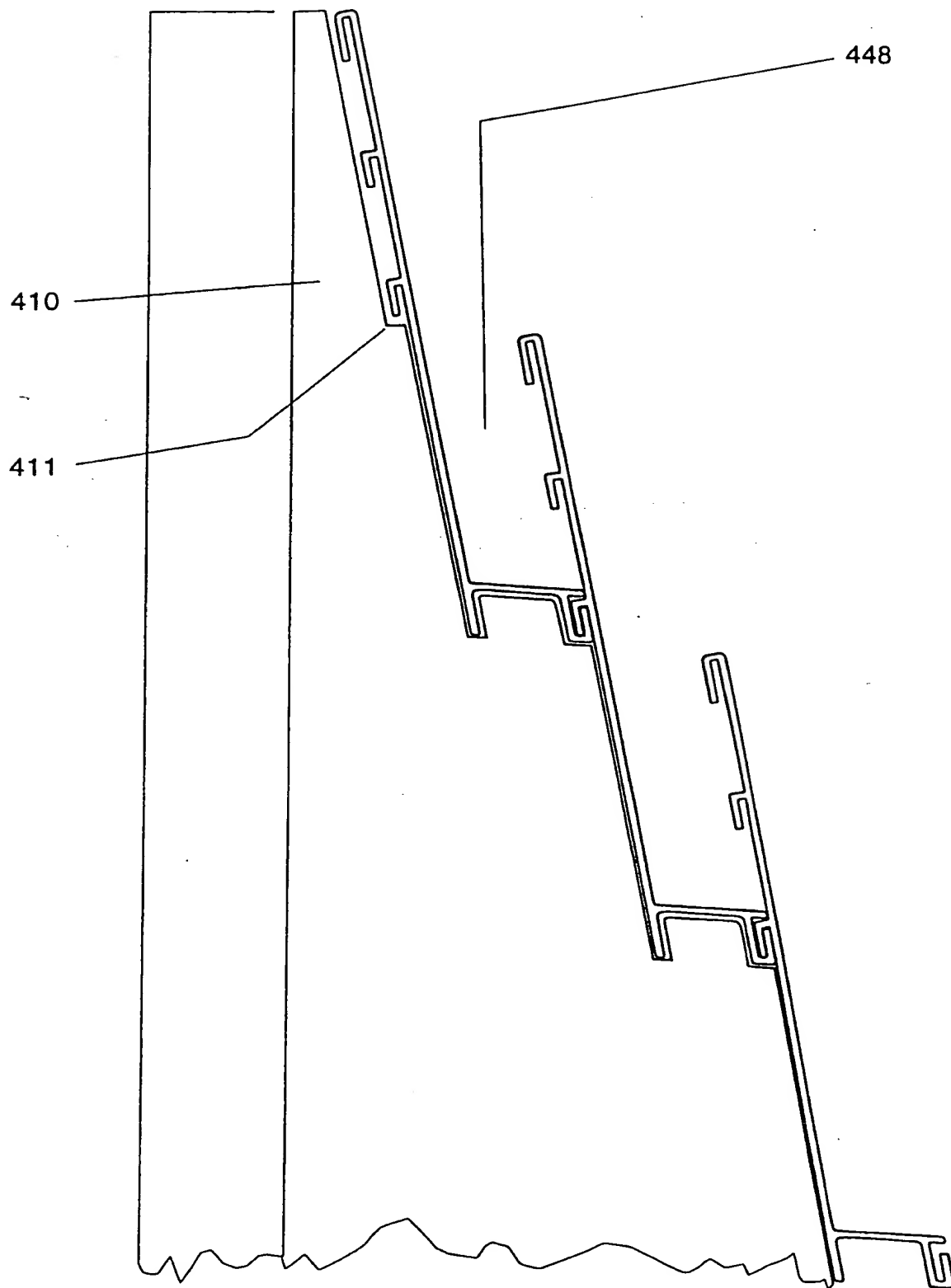


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Figure 8



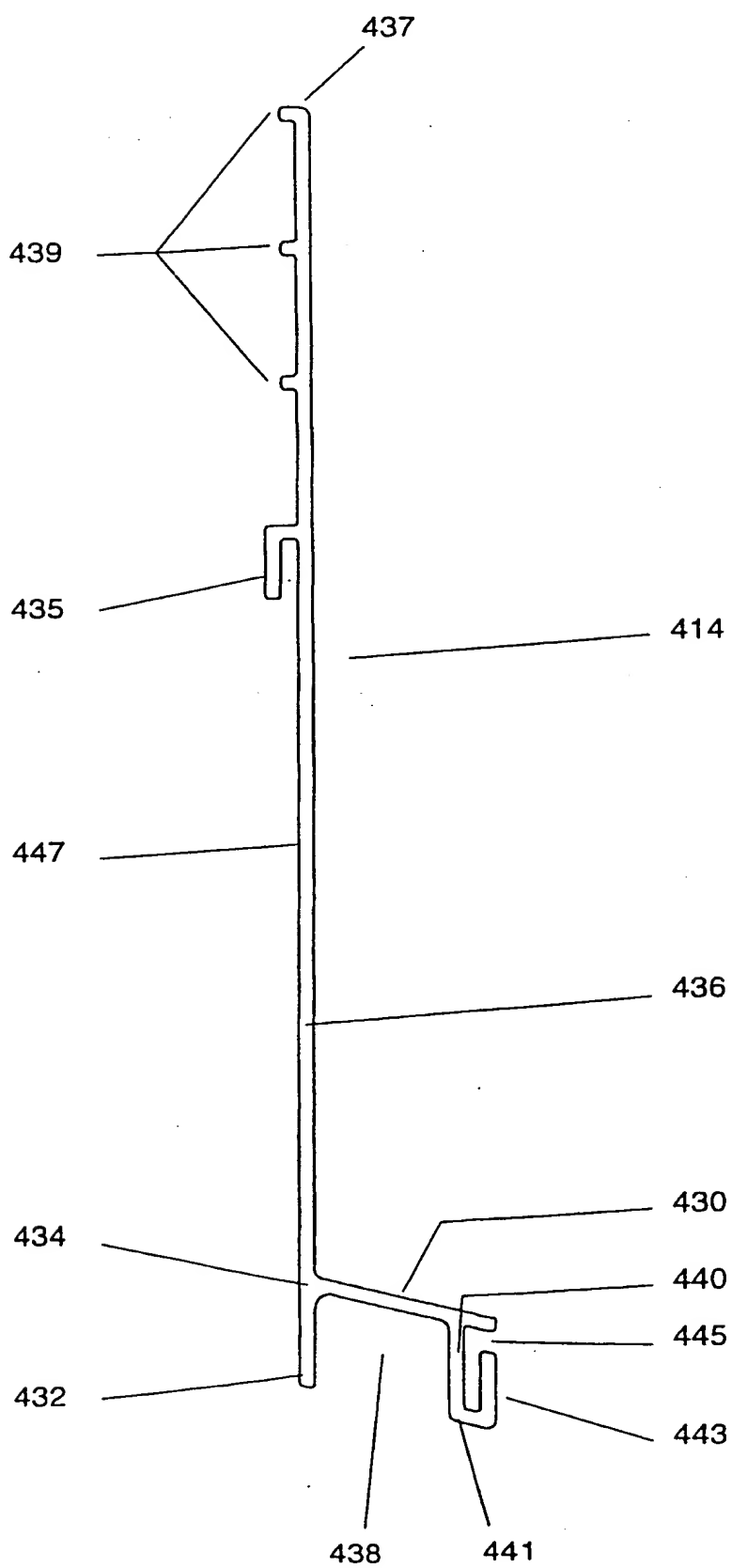
9/15

Figure 9



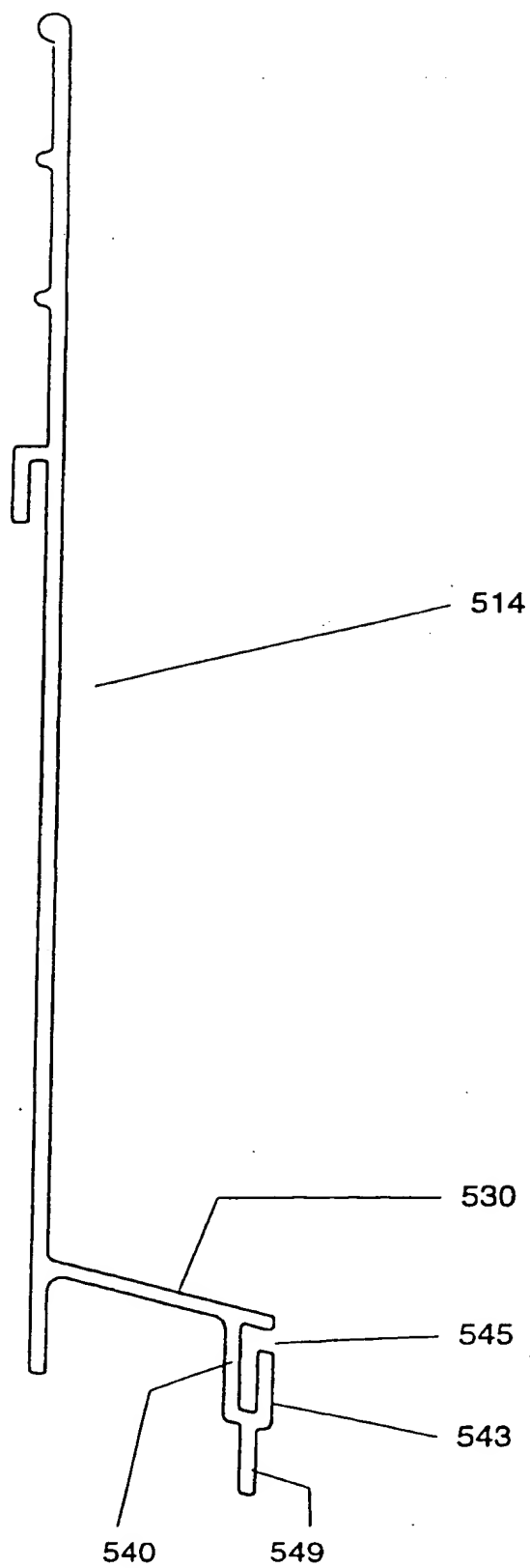
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Figure 10

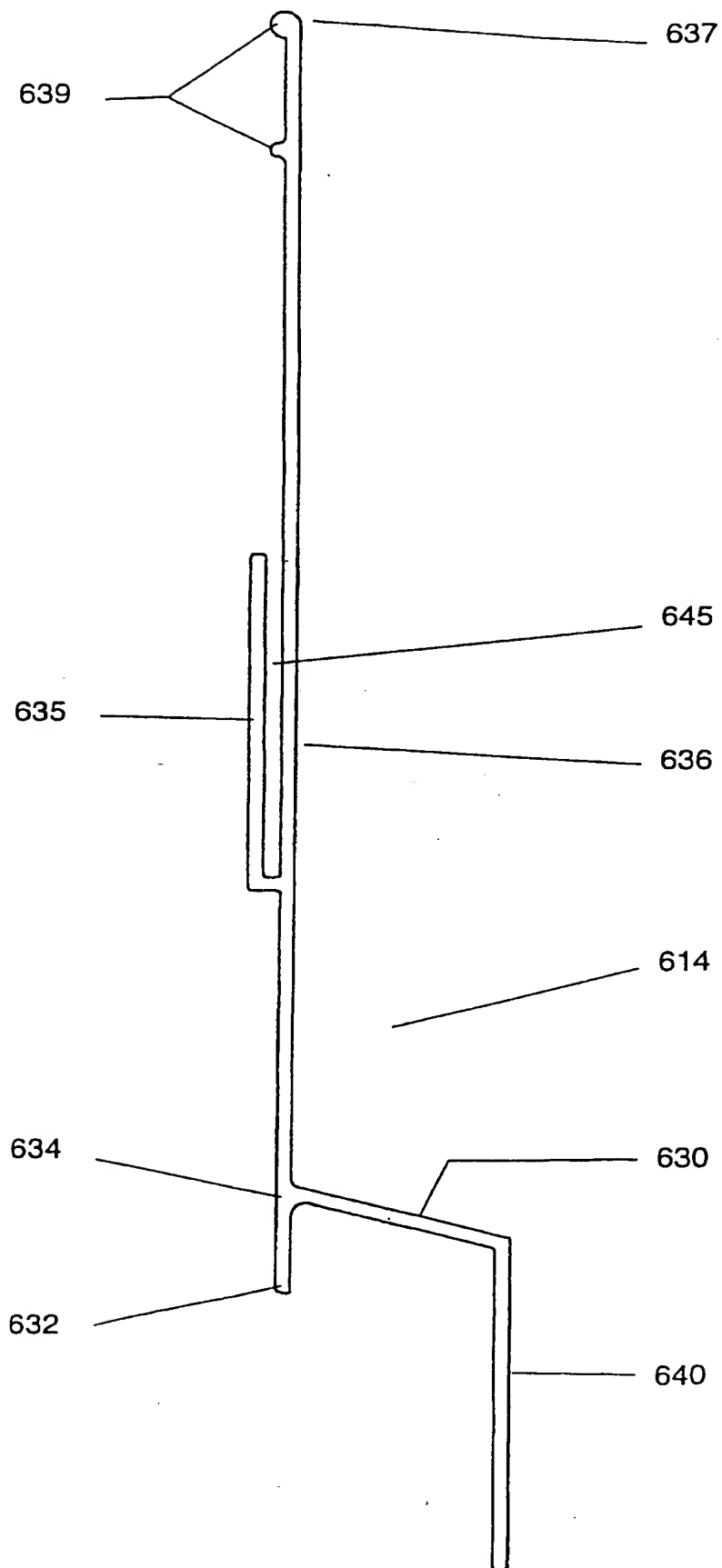


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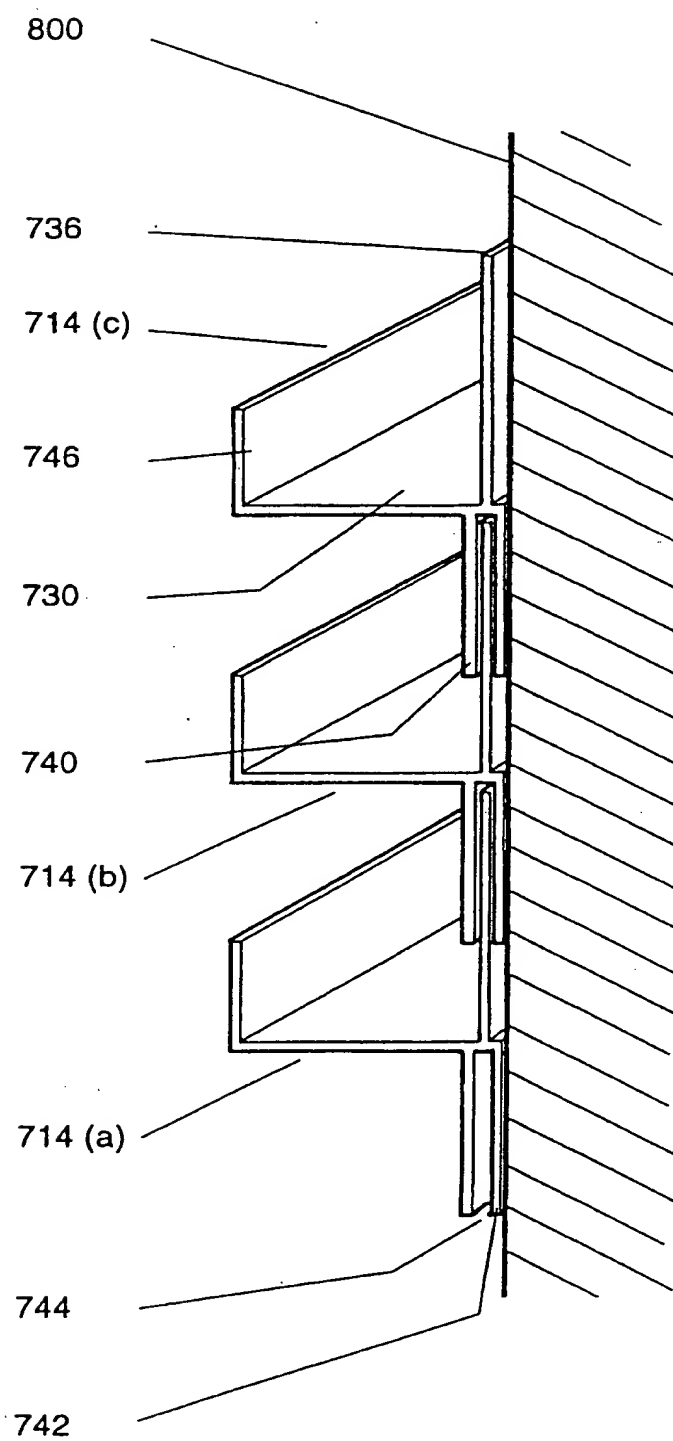
Figure 11



12/15
Figure 12



13/15
Figure 13



14/15
Figure 14

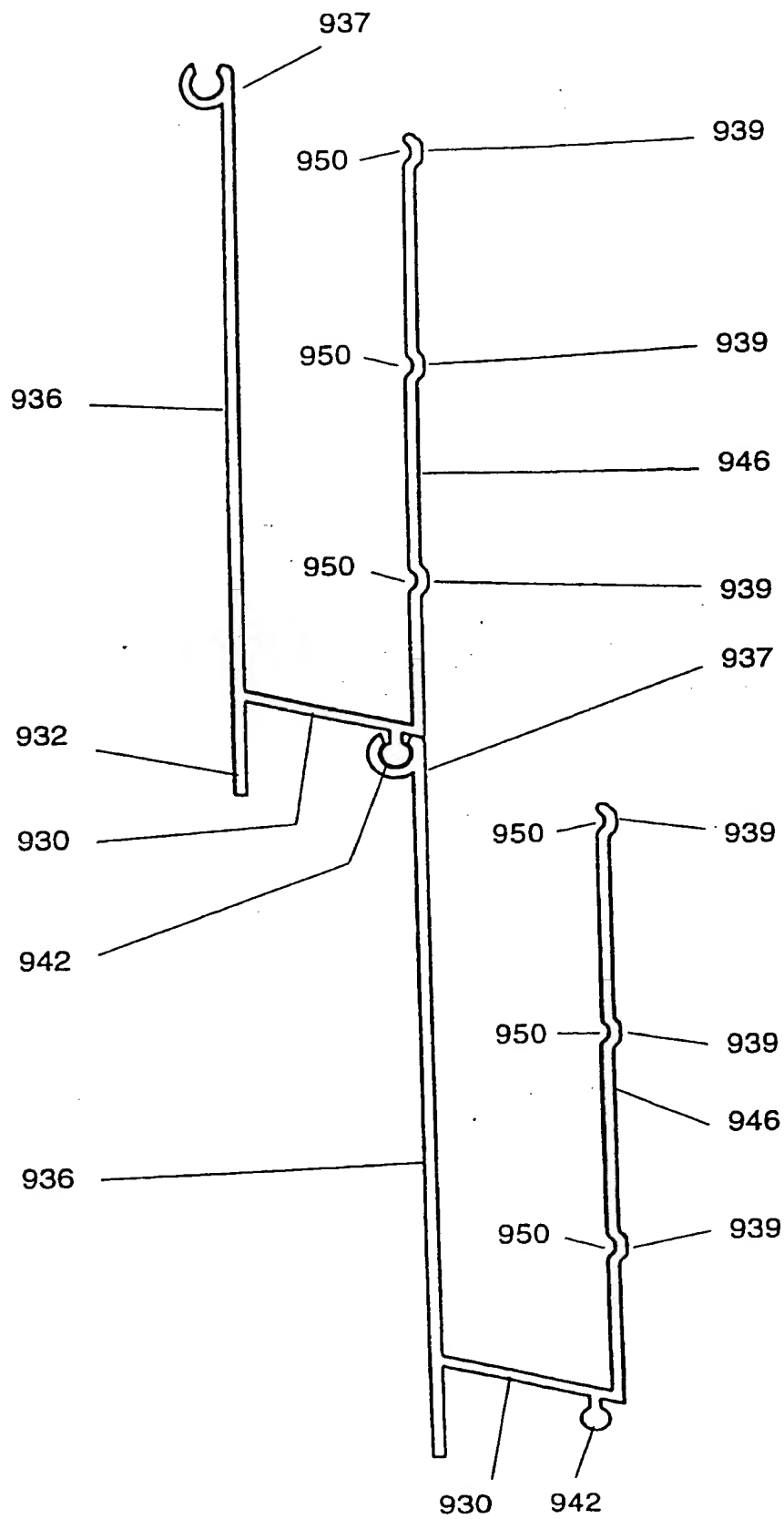
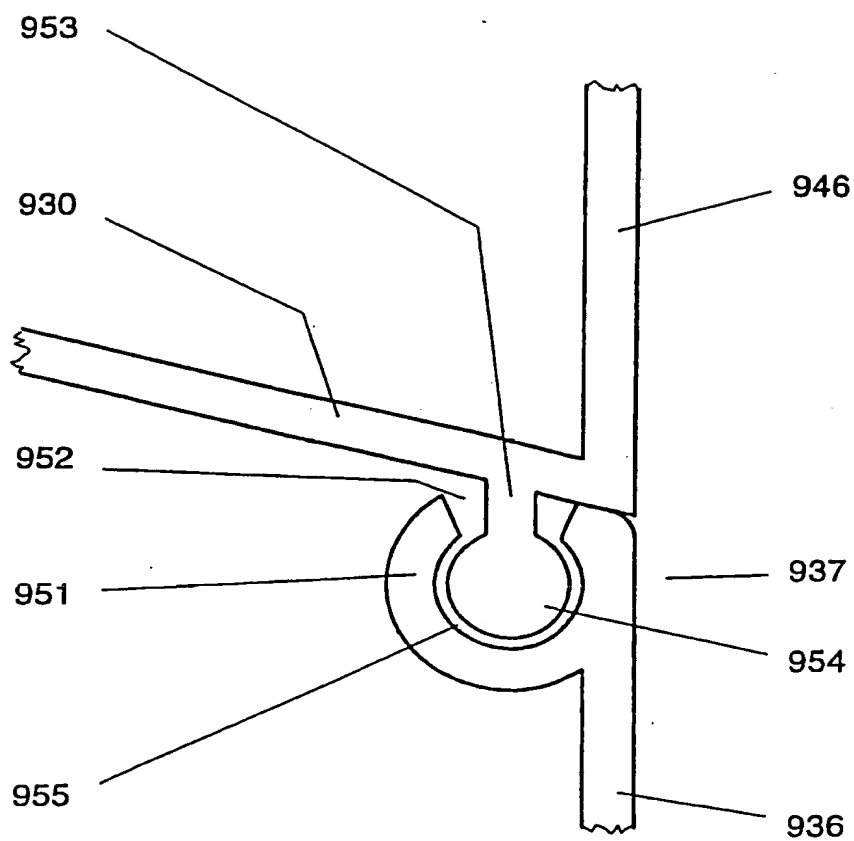


Figure 15



INTERNATIONAL SEARCH REPORT

International Application No.
PCT/AU 98/00397

A. CLASSIFICATION OF SUBJECT MATTER

Int Cl⁶: G09F 1/10, A47F 5/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC : G09F 1/10, A47F 5/00, 5/10, 5/11, 5/16

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPAT : (SHOW() STAND# or CARD() STAND# or (DISPLAY and STAND#) and MODUL:

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	AU,A, 68974/94 (PRIME REALTY PTY LTD) 16 February 1995 see whole document	13, 14, 16, 20-25
X	GB,A, 2034579 (P.D. DESIGN ASSOCIATES LIMITED) 11 June 1980	13, 14, 20, 21

☐ Further documents are listed in the
continuation of Box C

☐ See patent family annex

* Special categories of cited documents:

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"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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Date of the actual completion of the international search
10 July 1998

Date of mailing of the international search report
15 JUL 1998

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